Keeping practical orthopaedic nursing skills alive: Developing a photographic traction guide

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Summary
This article describes the authors’ journey from observation of poor levels of knowledge and practice relating to the assembly and care of various forms of traction in clinical practice, to the development of a photographic guide. The guide is intended to provide a step-by-step bedside teaching resource to be used at ward level, in the same way that a cookery book guides aspiring cooks through the sequential stages of food preparation. Other practitioners could use similar technology and methodology to create similar guides for their workplace.

KEYWORDS
Orthopaedic;
Trauma;
Traction;
Practice development

Editor’s comments
New technology has meant that producing educational resources is simpler and quicker than ever. This article describes how one hospital has produced their own traction manual as a source of professional development for health care professionals to ensure high standards of care are maintained.

Background
The UK government healthcare modernisation agenda emphasises the need for nurse leadership and the development of interprofessional collabo-

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fuses all aspects of the organisation's work (NHS Executive, 1999). Nurses at every level are expected to be 'clinically effective' by offering, in every clinical situation, treatment and nursing care conducive to the best clinical outcome for the patient, and are responsible for developing and maintaining their skills at an optimum level (Castledine, 2004).

The last century saw an increasing emphasis and value being placed on the scholarly evolution of nursing (Meleis, 1991), with an exploration and study of the meaning and theoretical base of nursing providing support for the premise that it should be regarded as a profession rather than a discipline (Fatchett, 1998), with concomitant emphasis on the development of academic skills among student and post-registration nurses (Corlett et al., 2003). However, it has been argued that these developments have led to a devaluing of practical skills and competencies among nurses (Bjork, 1995; Knight et al., 2000) with a subsequent deficit in the teaching of the practical skills that new nurses need to be able to work competently and confidently in their chosen discipline (Stevenson, 1996; Bjork, 1999; Best, 2005). These commentators’ views have been borne out by observation of many examples of poor practice by the authors among nurses at all levels (Benner, 1984). Additionally, modern nurses work in a climate in which the amount spent on agency nurses has tripled since 1997 and one in ten nurses leave the NHS every year (Buchan and Secombe, 2004). This means that a significant amount of health care is being provided by temporary and/or inexperienced staff who do not possess the specialist skills and knowledge their patients need. It is therefore clear that skills and practices that are rarely used are in danger of being lost unless they can be enshrined in a clear, accessible and user-friendly format (Gagan and Hewitt-Taylor, 2004).

Two decades ago most orthopaedic wards could show examples of several different types of traction at any one time and the majority of orthopaedic nurses rapidly became skilled in its principles and practice by means of working alongside and learning from expert orthopaedic nurses (Royle and Walsh, 1992). The current management of orthopaedic patients is concerned with early fixation and rehabilitation. The result of this change has been that opportunities for nurses to become proficient in traction assembly skills are increasingly few in number. Consequently many nurses have little or no knowledge or experience of traction and are therefore unable either to demonstrate competence or to teach others.

Against this background, however, there are still some orthopaedic patients for whom there is no practicable alternative to some form of traction, whether to control their pain, stabilise their fracture in the pre-operative period or, occasionally, as a definitive treatment. For orthopaedic trauma nurses, therefore, traction assembly may be seen as a basic skill, essential for effective professional performance (Beattie, 1987). It is clear that there is a need to explicate this traditional skill in an accessible form for the benefit of new generations of health care professionals and, of course, the patients themselves. It has been proposed that nurses are as good as their last procedure, and that all procedures and tasks should be regularly updated and practised. Castledine (2005) highlights the need for nurses of all levels of experience, not just students, to make sure that their skill base is current and well-honed.

Learning about traction

Teaching that engages more than one of the student’s senses, e.g. talking/listening accompanied by practical work, backed up with written material that reinforces the heard and experienced learning, is likely to be more effective than any which incorporates only one or two modes (Bruner, 1977). Mixed-mode teaching is particularly valuable when it relates to a practical skill that involves both cognitive and motor aspects (Hampton, 1998). In determining how best to preserve and teach traction skills, therefore, it was decided to reinforce practical tutorials on traction assembly with a pictorial guide, to serve as a reminder at a later time and to provide an informational resource for any occasion when nurses find themselves unsure of how to proceed with traction-building. Studies indicate that nurses are more likely than medical colleagues to refer to guidelines when they are unfamiliar with a procedure (Gabbay and Lemay, 2004) and therefore an explicit guide with care instructions seemed an appropriate development. The guide was designed to incorporate all those assemblies likely to be used, and featured, in addition to the assembly guides, an illustrated glossary of equipment utilised.

Various nursing texts already in print provide guidance on the general principles of various forms of traction (Royle and Walsh, 1992; Mallett and Bailey, 1996; Schoen, 2000), and the Royal College of Nursing has produced an excellent and detailed resource (Jackson and Booth, 2002). However, what none of these texts can provide is a locally developed, illustrated, step-by-step instruction of the
assembly of traction equipment using kit that is familiar and available to the user. Therefore the practitioner trying to build traction from general guidelines and line-sketches has to struggle to identify which pieces, from the bewildering array stacked in the storage cupboard, can be utilised to achieve the desired result.

The traction guide opens each section with a list of the requisite components (see Fig. 1), each of which can be found in the illustrated glossary. This structured layout builds on a tradition of nursing educational materials extending back through many decades – a guide to trolley laying dated 1941 utilised an illustrated glossary and used photographs to guide the reader (Castledine, 2004). Thus the nurse can take the book to the equipment locker and assemble an appropriate set of parts, confident that each piece can be identified from its photograph and knowing precisely how many of each component to collect.

Every stage of traction assembly was photographed, using a digital camera so that the images could be electronically manipulated to best effect (Fig. 2).

The experience of doing this reinforced the importance of breaking activities down into sequential stages (Chandler, 1992), as some early chapters were subsequently found to have incorporated too many stages of construction into one photograph, leaving the user confused as to which should be tackled first. This necessitated some redesign, and encouraged the authors to plan their picture sequences carefully.

The photographs include some cautionary pages, highlighting some common mistakes and problems, in order to preserve and promote good practice in this traditional nursing skill. The choice of digital photography meant that it was simple to insert enlarged details as insets in order to illustrate small components such as swivel hooks and focus on the finer points of construction such as a Pearson knee flexion attachment (Fig. 3).

Another major benefit was that the book could be stored in electronic form for easy updating and reprinting, and could also be made available in CD form for postage and access via standard computer terminals throughout the hospital.

**Figure 1** Title page of os calcis traction.

**Figure 2** Sequential pages illustrating stringing for Hamilton Russell.
Since one of the driving principles of the guide was that all the kit used in the photographs should be available to the reader, the book was arranged in loose-leaf folder format. Thus if any item of kit is changed in the future, following variations in supplier or new developments in technology, a new chapter can be designed and inserted without rendering the whole book obsolete.

Evaluation of the traction guide in practice has shown it to be a useful tool. Guided by the step-by-step photographs, a newly qualified 'novice' nurse (Benner, 1984) with no experience of building, or caring for a patient in traction, was able to assemble a functional, effective Thomas splint, thus providing the safe and competent care to which his patient was entitled (NMC, 2002). Another 'competent practitioner' nurse (Benner, 1984) with, albeit infrequent, previous experience stated that she found the guide to be a useful reminder when putting up a Balkan beam assembly, as she did not prepare traction often enough to feel confident of her ability. These examples, which correspond to similar feedback from other users of the guide, indicate that there is a role for this type of explicit teaching aid at several levels of nursing proficiency and fully justified the time and effort expended in its creation. The users reported that their experiences allowed them to feel more competent within their specialised field — and of course, their patients benefited from receiving timely, appropriate care.

Bjork makes a powerful point when she states that patients expect to be met by mastery and efficiency when they are in need of practical nursing actions (Bjork, 1997).

Skilled orthopaedic nurses with a passion for communicating their knowledge and keeping nursing skills alive could use the format of this guide as a model, and develop their own folder, using simple and accessible technology. By this means new generations of nurses will be supported in their professional development, and orthopaedic trauma patients will continue to receive optimum nursing care.

References


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